



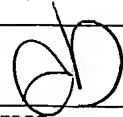
UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/092,230 | 03/06/2002 | Robert S. Hirsch | 107044-0017 | 8658 |
| 24267 | 7590 | 04/01/2004 | EXAMINER | |
| CESARI AND MCKENNA, LLP 88 BLACK FALCON AVENUE BOSTON, MA 02210 | | | LE, HOA VAN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1752 | |

DATE MAILED: 04/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|-----------------------------------|---|
| Office Action Summary | Application No. 10/092,230 | Applicant(s) HIRSCH, ROBERT S. | |
| | Examiner Hoa V. Le | Art Unit 1752 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-8, 10-12 and 14-17 is/are allowed.
- 6) ☒ Claim(s) 1, 9 and 13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>13 June 2002</u> . | 6) <input type="checkbox"/> Other: ____. |

Art Unit: 1752

This application is before the examiner for consideration on the merits.

- I. Figure 1 is fine. Figures 2A and 2B are acceptable. However, figure 3 is objected to for its unclearness by the broken and unstraight lines.
- II. A careful study of the instant application unveils that there is no new chemical ingredient is discovered or applied in the instant claims.
- III. There are multiple independent groups of the claims. There is no record that they are patentably different or distinct class to be considered or searched. Therefore, no separate considered or searched is made. Accordingly, the broadest independent claim 9 as the main invention. Should applicant shows or urges otherwise in the next response to this Office action in order for it to be considered timely. A restriction will be made for the record as shown or urged.
- IV. A. (1) It is allowed to claim by a functional, characteristic, physical and/or chemical property of a material and /or process. (2) However, a claimed functional, characteristic, physical and/or chemical property of a material and/or process carries with a risk (In re In re Schreiber, 44 USPQ2d 1432). It is reasonable that the Office is not supplied, provided or equipped with a sufficient facility to carry out a test for the functional, characteristic, physical and/or chemical properties as claimed in accordance with the authority stated in In re Best, 195 USPQ 430; Ex parte Maizel, 27 USPQ2d 1662 or Ex parte Phillip, 28 USPQ2d 1302. The language "a

Art Unit: 1752

membrane electrode...protonically-conductive", "layer of material that...non-reactive to the liquid fuel", "layer of material having...of a leak", "layer...liquid permeable", "enclosure material...that shrinks...upon heating", "enclosure material...carbon dioxide to pass through", "sealed and to receive air filtration" and/or the like is considered as the functional, characteristic, physical and/or chemical properties of a materials.

(B) In re Schreiber, 44 USPQ2d 1429 state that "A patent applicant is free to recite features of an apparatus either structurally or functionally. See In re Swinehart...169 USPQ 226, 228... Yet, choosing to define an element functionally, i.e., by what it does, carries with a risk. As our predecessor court state in Swinehart...where the Patent Office has reasons that the functional limitation asserted to be critical for establishing novelty in the claimed subject mater may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on."

V. Claim 13 contains the trademark/trade name Teflon. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or

Art Unit: 1752

trade name. In the present case, the trademark/trade name is used to identify/describe a material and, accordingly, the identification/description is indefinite.

VI. Claim 13 is also rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fail to fully spell out chemical name ---polyvinylchloride--- for PCV. A claim limitation is read in light of the disclosure but it must be complete by itself when there is possible. Applicant is urged to show or provide a convincing evidence to the contrary.

VII. Applicant's prior art submission filed on 13 June 2002 has been considered.

VIII. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9 and 1 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hockaday (6,326,097), Lawrence et al (US 2004/0013927) and Acker et al (US 2002/0102451).

Hockaday discloses, teaches and suggests a conventional direct oxidation fuel cell assembly in an enclosure. Please see the whole disclosure of each of the applied references, especially in Hockaday at figures 2, 3, 4(A, B, C and D), 5(A and B), 6(A and B), 7(A and B), 8(A and B), 9-10 and (12-14) and their descriptions. For additional details of the fuel cell element, please see Lawrence et al at figures 1-11 and 26-31 and their descriptions, paragraphs 0013-0014, 0072-0082, 0092, 0096-0105, 0172-0178. In claim 1, for a gas separator, please see

Art Unit: 1752

Acker et al at paragraph 0067. Since the above references are all related to fuel cells, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use or cite the known elements for their known functions to be used in fuel cell for the advantage of producing electrochemical current as disclosed, taught and suggested in the secondary references in the absence of a showing of an unusual or unexpected result for a patentability of the claims. Applicant is urged to show a convincing evidence to the contrary.

IX. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa V. Le whose telephone number is 571-272-1332.

The examiner can normally be reached from 6:00 AM to 4:00 PM on Monday through Thursday and about the same time of most Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark F. Huff can be reached on 571-272-1385. The fax phone numbers of the examiner is 571- 273-1332. Since there is a newly electronic filing procedure for all initial communicating papers and all responses to an Office action, the examiner fax phone number is not for use to receive any fax in response to an Office action. Applicant is requested and required to send all initial communicating papers and all response to Office action to a central paper or fax receiving center for an electronic scanning procedure.

Applicants may file a paper by (1) fax with a central facsimile receiving number 703-872-9306,

(2) mail with a central mail receiving address:

U.S. Patent and Trademark Office

Art Unit: 1752

2011 South Clark Place

Customer Window

Crystal Plaza Two, Lobby, Room 1B03

Arlington, VA 22202

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hoa V. Le
Primary Examiner
Art Unit 1752

HVL
24 March 2004

HOA VAN LE
PRIMARY EXAMINER

